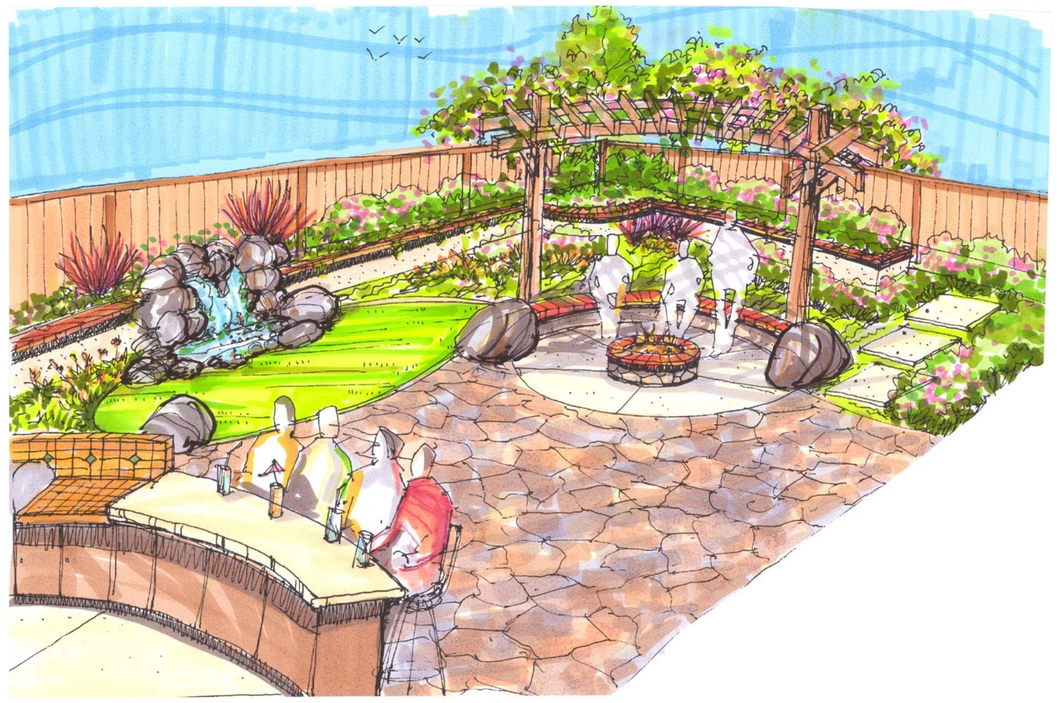
LANDSCAPE PLANS PREPARED FOR:

DESIGN FOR EMPTY NESTER/ENTERTAINER

TYPICAL RESIDENTIAL PLOT



BACK YARD VIEW NOT TO SCALE

LOW-WATER-USE LANDSCAPE DESIGN STATEMENT
EMPTY NESTER/ENTERTAINER

THE LANDSCAPE DESIGN FOR THIS RESIDENTIAL YARD IS BASED AND STRUCTURED ON THE NATURE OF THE HOMEOWNER'S ACTIVITIES. THE HOMEOWNERS ARE EMPTY NESTERS THAT ENTERTAIN OFTEN. THE LANDSCAPE DESIGN SERVES AS A BACKDROP TO ENHANCE THEIR ENTERTAINMENT ACTIVITIES.

HARDSCAPE ELEMENTS, SUCH AS BUILT-IN-BBQ, FIREPLACE, A VINE COVERED WOOD TRELLIS, AND INFORMAL FLAGSTONE PAVING, HELP TO CREATE AN INVITING ATMOSPHERE. A SMALL RECIRCULATING WATER FEATURE IS AN ACCENT TO THE GARDEN WHICH IS LOCATED ON A BACK RAISED PLANTER WALL. THE WATER FEATURE IS CENTERED ON THE BACKYARD DOORS DRAWING THE GUESTS OUT ONTO THE EXTERIOR PATIO. IT ALSO PROVIDES THE GARDEN WITH THE PLEASANT SOUND OF TRICKLING WATER. A SMALL AREA OF ARTIFICIAL TURF AND DROUGHT TOLERANT PLANT MATERIAL SHALL COMPLIMENT THE LANDSCAPE DESIGN. AS WATER CONSERVATION IS OF UTMOST IMPORTANCE, DROUGHT TOLERANT PLANT MATERIAL SHALL BE USED EXCLUSIVELY THROUGHOUT THE PROPERTY.

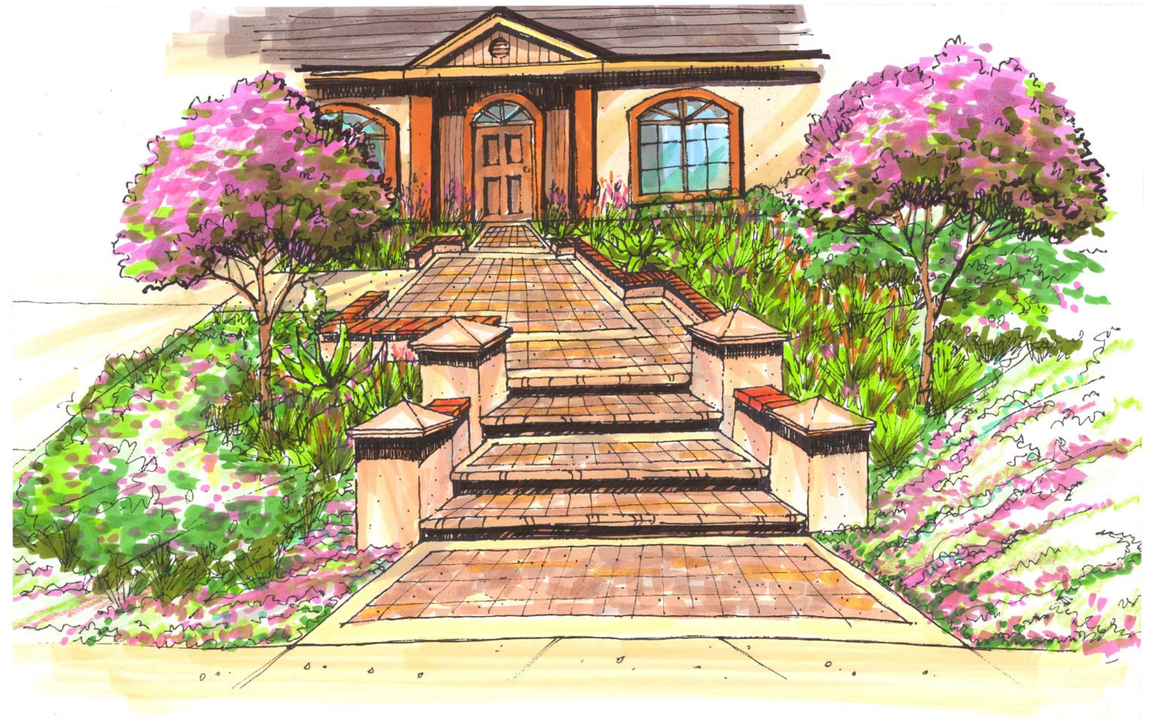
PLANTING CONCEPT:

- Low Maintenance: Because the homeowners are empty nesters, the landscape was designed so that little maintenance is required.
- Drought tolerant: The planting concept was developed using a drought tolerant plant pallet. This will help conserve water and keep the yard attractive when the homeowners are away.

IRRIGATION CONCEPT:

This irrigation design utilizes three different irrigation systems to give the homeowner a choice.

- DRIP IRRIGATION: This system uses the lowest amount of water, and shall be recommended for the raised planter area.
- LOW PRECISION SPRAY HEADS: (such as those manufactured by Toro) Most areas that are less than 10' in width will get low precision spray heads. These heads use much less water than conventional spray heads.
- MP ROTATOR HEADS: (such as those manufactured by Hunter) All areas that are larger than 10' in width shall be installed with MP Rotator heads. MP Rotator heads fall somewhere between drip irrigation and precision nozzle spray heads in terms of amount of water used.
- SMART CONTROLLER: A smart controller shall monitor the outside weather conditions and limit the irrigation system to water only when it is needed by the plants. For example, when it is raining, the controller will shut off the entire irrigation system. It will turn the system back on when the soil becomes dry and moisture is needed.
  - Adjusts watering to changes in climatic condition
  - Most economical solution to weather-based control
  - Simple to program and install
  - Reduces water usage and improves plant health
  - Great for residential installations and water conservation rebate programs
  - Reduces water use and saves water



FRONT YARD VIEW NOT TO SCALE

SHEET INDEX:

PREPARED FOR:

HELIX WATER DISTRICT
OTAY WATER DISTRICT
PADRE DAM MUNICIPAL WATER DISTRICT
SWEETWATER AUTHORITY

PREPARED BY:

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MAXIMUM APPLIED WATER ALLOWANCE CALCULATION - MAWA

MAWA = (ETo)(0.62)[0.7 x LA + 0.3 x SLA]
MAWA = (46.5)(0.62)[0.7 x 2,880 + 0.3 x 0]
MAWA = 58,121 Gallons per Year
MAWA = 58,121 / 748 = 78 HCF (Hundred-Cubic-Feet Per Year)

ESTIMATED TOTAL WATER USE CALCULATION - ETWU

IRRIGATION HYDROZONE 1
ETWU = (ETo)(0.62)(PF x HA / IE + SLA)
ETWU = (46.5)(0.62)(0.2 x 376 / 0.8 + 0)
ETWU = 2,710 Gallons per Year
ETWU = 2,710 / 748 = 4 HCF (Hundred-Cubic-Feet Per Year)

IRRIGATION HYDROZONE 2
ETWU = (ETo)(0.62)(PF x HA / IE + SLA)
ETWU = (46.5)(0.62)(0.2 x 1,253 / 0.75 + 0)
ETWU = 9,633 Gallons per Year
ETWU = 9,633 / 748 = 13 HCF (Hundred-Cubic-Feet Per Year)

IRRIGATION HYDROZONE 3
ETWU = (ETo)(0.62)(PF x HA / IE + SLA)
ETWU = (46.5)(0.62)(0.2 x 1,097 / 0.65 + 0)
ETWU = 9,731 Gallons per Year
ETWU = 9,731 / 748 = 13 HCF (Hundred-Cubic-Feet Per Year)

IRRIGATION HYDROZONE 4
ETWU = (ETo)(0.62)(PF x HA / IE + SLA)
ETWU = (46.5)(0.62)(0.2 x 154 / 0.85 + 0)
ETWU = 1,044 Gallons per Year
ETWU = 1,044 / 748 = 1 HCF (Hundred-Cubic-Feet Per Year)

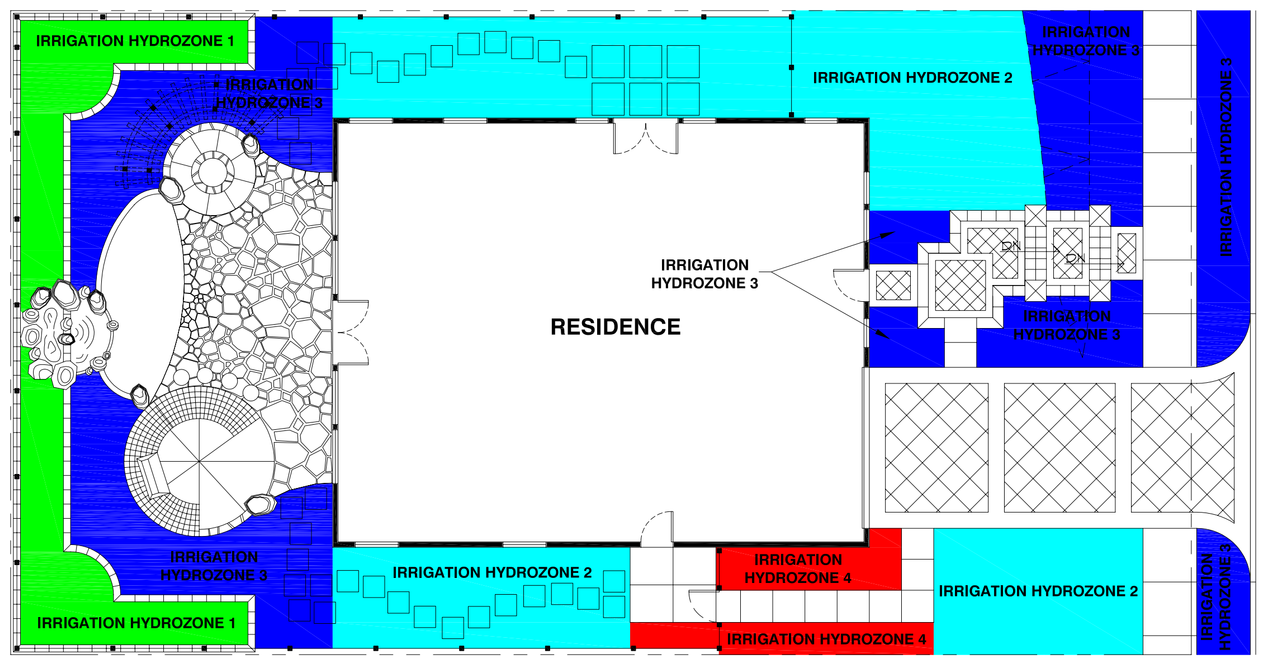
TOTAL FOR ALL IRRIGATION HYDROZONES
ETWU = HYDROZONE 1 + HYDROZONE 2 + HYDROZONE 3 + HYDROZONE 4
ETWU = 2,710 + 9,633 + 9,731 + 1,044
ETWU = 23,118 Gallons per Year
ETWU = 23,118 / 748 = 31 HCF (Hundred-Cubic-Feet Per Year)

CONCLUSION

*The ETWU (**23,118** gallons per year) is less than MAWA (**58,121** gallons per year). The water budget for this residential lot complies with MAWA.*

LEGEND

SYMBOL	DESCRIPTION
	IRRIGATION HYDROZONE 1 Plant Material - Drought tolarent/low water use plants Plant Coefficient *(PF)* - 0.2 Annual Yearly Evapotranspiration for City of San Diego *(ETo)* - 46.5 Landscape Area *(HA)* - 376 Sq. Ft. Irrigation Type - Drip Irrigation Irrigation Efficiency *(IE)* - 0.80
	IRRIGATION HYDROZONE 2 Plant Material - Drought tolarent/low water use plants Plant Coefficient *(PF)* - 0.2 Annual Yearly Evapotranspiration for City of San Diego *(ETo)* - 46.5 Landscape Area *(HA)* - 1,253 Sq. Ft. Irrigation Type - MP Rotators Irrigation Efficiency *(IE)* - 0.75
	IRRIGATION HYDROZONE 3 Plant Material - Drought tolarent/low water use plants Plant Coefficient *(PF)* - 0.2 Annual Yearly Evapotranspiration for City of San Diego *(ETo)* - 46.5 Landscape Area *(HA)* - 1,097 Sq. Ft. Irrigation Type - Toro Precision Nozzles Irrigation Efficiency *(IE)* - 0.65
	IRRIGATION HYDROZONE 4 Plant Material - Drought tolarent/low water use plants Plant Coefficient *(PF)* - 0.2 Annual Yearly Evapotranspiration for City of San Diego *(ETo)* - 46.5 Landscape Area *(HA)* - 154 Sq. Ft. Irrigation Type - Bubblers Irrigation Efficiency *(IE)* - 0.85



PLAN VIEW NOT TO SCALE

IRRIGATION HYDROZONE PLAN AND WATER USE CALCULATIONS

REVISIONS	BY

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LANDSCAPE TITLE SHEET

DESIGN FOR EMPTY NESTER/ENTERTAINER
TYPICAL RESIDENTIAL PLOT

Date:	4-30-10
Scale:	AS SHOWN
Drawn:	MS
Job:	COOP. COMM.
Sheet	L-1
of	5 Sheets